

#2033 - 12161

609

Roaring Spring • Top Scholar—Roaring Spring, Pa. 16673



70972 14011

0

NO. 14011

76 mm x 127 mm

3 in x 5 in

**100 Sheets**

12033-1 Sept., 1936.

AC, Sherel Goodrich,

Cewart McArthur, and  
Sigmund Meiss.

Wasatch Co., Utah

Open parkland with  
bordering conifers

Wolf Creek summit,

32 km. airline east of  
Heber City. Elev. 2800 m.

Twp. 1 N., R. 10 W., S. 16, Uinta

Special Meridian. Plants

3-7 dm tall, with

Several to many slender  
curved awl-shaped  
stems from the base

and sprouting from the  
base. Flowers 8-16  
per head. ↓ V. 609

12033 contd.

*Artemisia spiciformis* Osterh.



*Artemisia spiciformis* (1)

2034. 1 Sept. 1986. AC,  
Sherel Goodrich, Dewart  
Mc Arthur, and Elizabeth  
Neese. Duchesne Co., Utah.

Open slopes along the  
West Fork of the Duchesne  
River, 17 km. Northwest  
of Tabiona, Twp. 14 N.,  
R. 9 W., S. 26. Uinta  
Special Meridian. Elevation  
2250m. Plants 4-10 dm.  
tall, the inflorescences  
standing above the  
vegetative parts

Flowers 3-7 per head.  
Crushed leaves with a sweetish  
camphor-like aroma.  
*Artemisia tridentata* Nutt.  
var. *vaseyana* (Rydb.) Boivin  
art. tenui var. ⑥

12035) Sept 1986. AC,  
Steel Branch, Oregon  
McArthur, and Elizabeth  
Hesse. Same place as 12034.  
Scattered individuals in  
a stand of *A. tridentata*  
*var. vaseyana*.  
Plants 1.5-2.5 m. tall,  
irregularly rounded,  
the inflorescences not  
nearly surpassing the  
vegetative parts. Flowers  
5 per head, but blooming  
later than *var. vaseyana*.  
Few apparent intermediates.  
*Artemisia tridentata* Nutt.  
*var. tridentata*

Big negel. ②

12036 - 1 Sept. 1986. AC,  
Sherel Fredrick, Durant  
McArthur, and Elizabeth  
Neese. Open gentle slopes  
at the lower edge of  
the piñon-juniper zone  
5 km. south of Tabiona.  
Twp. 25, R. 7 W., S. 17,  
Uinta Special Meridian.  
Elev. 2075 m. Plants  
4-10 dm. tall. Heads  
globose, with (3)4-5 flowers.

*Artemisia tridentata* Nutt.  
var. *wyomingensis* (Boettler & A. Young)

Welsh

12037 - Sept. 1, 1986. AC,  
Steel Goodman, Durrant  
MacArthur, & Elizabeth Neese  
In thin pockets of soil  
on flat sandstone rocks  
at the lower edge of  
the piñon-juniper  
zone. Ca. 232 km. west  
of Duchesne, Duchesne Co.,  
Utah. Elev. 2000 m.

Twp. 35., R. 8W., S. 23.

Uinta Special Meridian.  
Rays 5-10, yellow ✓

*Helianthella microcephala*  
(A. Gray) A. Gray

*Helianthella microcephala* (1)

12038 - 1 Sept. 1986. AC,  
Sherel Goodrich, Durant  
McArthur, & Elizabeth  
Neese. Wasatch Co., ~~Utah~~  
Utah. Dry meadow-  
slope in Strawberry  
Valley, 35 km. southeast  
of Heber City. Elev. 2300m.  
Plants mostly 4-8 dm.  
tall. Flowers (8-) 10-13  
per head.

*Artemisia cana* Pursh

*Artemisia cana* (6)

12039. 2 Sept. 1986. AC.

Sherel Goodrich, Duran McArthur,  
Elizabeth Neese & Leila Shultz.

Juab Co., Utah. Sandy  
places in sagebrush-

- rabbit brush communi-  
ty ca 3 km south  
of Yuba Dam, ca 45 km. airline  
east of Delta. Twp. 17S., R. 2W.

Elev. ca 1600 m.

Rays 6-13, yellow. Disk  
very dark.

*Helianthella microcephala*  
(A. Gray) A. Gray

5.

*Helianthella microcephala*

✓

1234D-2 Sept. 1986 AC,  
Sherel Goodrich, Durant McArthur,  
Elizabeth Neese & Leila Shultz  
Juab Co., Utah.

Same place as 12039.

Flowers 3-5 per head.

*Artemisia pygmaea*  
A. Gray

✓

3 --

*Artemisia pygmaea*

⑥

12041-2 Sept. 1980. AC,  
Sherel Goodrich, Duran & McArthur,  
Elizabeth Haase & Linda Shultz

Same place as 12039.

Flowers 4-6, yellow at first, soon fading nearly white.

*Chrysanthemus parryi'*

(A. Gray) Greene

var. *affinis* (A. Nels.)

3'

in "the valley  
Deserted Range")

12032 - 2 Sept., 1986, AG,  
Sherel Goodrich, Duncans Mt.  
Arthur, Elizabeth Noeske, &  
Leik Shultz. Same place as  
12039. Flowers 4 per head.

*Chrysanthemum viscidiflorus*  
(Hook.) Nutt.

var. *puberulus* (D. C. Eat.) Jepson

4 fls

Clinch mtns. (1)

12043-2 Sept. 1986. AC,  
Sherel Goodrich, Duran & McArthur,  
Elizabeth Neeset Leila Shultz

Clay soil amidst sandstone  
beds on open slope in  
piñon-juniper zone.

~~Pavant~~ Pavant Range, ca 25  
km. airline south of <sup>15 miles</sup><sup>more</sup> Millard Co., Utah  
Twp. 24 S., R. 4  $\frac{1}{2}$  W., S. 4.  
Elev. ca. 1800 m.

Low shrubs up to ca 4 dm. tall.  
Flowers 4-7 per head.

*Artemisia arbuscula* Nutt.

4-7

(6)

Art. arb.

12044 - 2 Sept. 1983.  
Same place as 12043 -

Heads yellow. Ray mostly 8.

*Gutierrezia petradoria*  
(Welsh & Goodrich) Welsh

*Gutierrezia petradoria* (Welsh & Goodrich) Welsh  
7 RR

120615 2 Sept. 1940, Sherel  
Sodrich, Durango, Colorado, El Paso Co.  
Seneca Co., Utah. On <sup>Heese, L</sup>  
<sup>Leigh</sup>  
<sup>Schiff</sup> <sup>112</sup>

Physiolite outcrops in  
valley-grass prairie

3 mi along Green Creek,  
16 km. due south of  
Kanosh, Twp 25 S.,  
R. 5 W., S. 35. Elev.

2200 m.

Leaves pale brownish  
gray, others nearly green

*Artemisia carruthii* Wood

Art. Carruthii. (1)

12046 - 3 Sept. 1986. AG, Carol  
Goodrich, Elizabeth Neese, and Leila  
Shultz. Millard Co., Utah.

Windblown sandy soil, in  
Pine Valley, ca 65 km. w. of  
~~of~~ Milford, shortly west  
of the Wa-Ka Mts. Twp. 24S.  
R 16W., ca. S 29. Elav.  
ca 1650 m. Densely branching  
shrubs 6-12 dm. tall. Flowers  
yellow (4) 5 per head  
Achenes glabrous.

*Chrysanthemus nauseosus* (Pallas)  
Britton

var. *turbinateus* (M. E. Jones) Blake

*Chr. n. turbinateus* ⑥

12047 - 3 Sept 1986 AC,  
Sherel Goodrich, Elizabeth  
Heese, & Heila Shultz. Sandy  
soil in Pine Valley, ca  
65 km. west of Milford,  
and shortly west of the  
Na wa Mts., Millard Co., Utah.  
Twp 25S, R. 16W. S. 40T6  
Elev. 1600 m.

Shrubs 2-5 dm. tall.

Flowers yellow, 4 or 5 per  
head.

*Chrysothamnus greenei* (A. Gray)

E.L. Greene

Ch. a. mon.

⑥

2-5 cm.

12048 - 3 Sept. 1996. AC,  
Sherel Goodrich, Elizabeth Neese  
and Leita Shultz.

Millard Co., Utah. In and  
along a gravelly wash in  
sandy ~~d~~ desert. Pine Valley,  
ca 65 km west of Milford, and  
shortly west of the Wah Wah Mts.  
T. 24 S. R. 16 W. S. 39

Elev. ca 1600' m.

Sheaths 6-20 mm. tall.  
Flowers yellow, 4-6  
per head.

*Lepidospartum latisquamum*  
S. Watson.

*Lepidospartum* (?)

12049. A.C. 7 Sept 1986  
Elko Co., Nevada. In the  
gravelly northeast slopes  
overlooking the Salt Lake  
Desert, ca 30 km. south  
of ~~Wardlow~~ Wardlow,  
and 17 km. northeast  
of White Horse Pass. Elev.  
ca. 1500 m. Twp. 30 North,  
R. 70 East. Elev. ca. 1550 m.

Low shrubs, mostly 2-4 dm.  
tall, lustrous shiny  
yellow-green.

*Artemisia nova* A. Nels. ✓

74-5

533

*Artemisia nova* (b)

12050. Ac 7 Sept 1986

White Mts., N.M.

Gentle, open west slope in  
broad valley between the  
Lobell Creek Range and the  
Egan range, ca 26 km.  
north of McGill. Elev.  
Twp. 21 North, R 64 E.

Elev. ca. 1800 m.

Shrubs 4-12 dm. tall.

*Artemisia tridentata*.

Nutt.

var. *wyomingensis* (Beebe & A. Young)

Welsh

Arid wye. 822.4. (6)

1955. 1. 18. El Paso, Tex.  
In valley of the salt  
flats, W. E. C. Greenway  
in brushy (Quercus) slopes  
at the north base of Mt.  
Olympus, just south of  
Keff's Ranch, at the  
southern margin of  
salt flat city. Top. 25.,  
R. 2 E., S. 6.

Elev. ca 1600 m.  
Rare plants, 2-4 m tall,  
with several species of  
brushes. Found with  
#12052,  
but sharply distinct at first.  
*Artemisia arbuscula* Nutt.  
*Artemisia arbuscula*

12052. A. v. vaseyana  
20 September 1986. Same place as  
12051. Plants ca 6-10  
dm. tall, flat-topped,  
with a sweetish,  
camphor-like odor.  
Grazing with #12051,  
A. arborescens, but  
sharply distinct at  
this point.

Artemisia tridentata Nutt.  
var. vaseyana (Rydb.) Boivin

12053 UC Her. 23 April 187

Hawkins Co., South Carolina  
In thickets on slopes around Big  
Rocky Creek Pass, elevation

Eleven ca 150m. <sup>ca 33 km west of</sup> Winnabow.  
Plants colonial, with rather  
short slender, fragile  
rhizomes as well as  
perennial bulbs. Flowers  
lavender-purple.

*Oxalis violacea* L.

*Oxalis violacea* ② ✓

12054 A.C.L. Shon - 26 April, '48.

Martin Co., Florida

In oak-magnolia forest, Ocala

National Forest, ca. 4  
km. east of Lynne.

Evergreen shrubs

ca. 3 m. tall. Flowers white

*Vaccinium arboreum* Marsh.

✓✓

*Vaccinium arboreum* 4)

12055 - A C & Shn

Levy Co., Florida.

Under *Fuscicus laevis*

etc. on sand-hills

between Williston and Bronson,

about 1 km. east southwest of  
Bronson.

Dense, evergreen shrubs  
mostly 1.5-2 m. tall.

Leaves elliptic, smooth or  
slightly pubescent, dark green,  
shiny surface, yellowish

*Ceratiola ericoides* Michx.



13260

*Ceratiola ericoides*

13261

12056 - Shear L Congarist  
30 April, 1987.

Ryley Carter

~~Under spruce-oak-pine  
woods along the high-  
way.~~

Elvira Montan

bandy soil. Plants mostly single-stemmed and biennial, occasionally blooming a second time, and then with 2 stems.

Breasts white. ~~and~~ least faint  
pink, but soon fading white.

37 m w. of page, - 2nd sec 1' 2" 28.1 26 m fish.

12036. Collection. 30 April 1937  
Polk Co., Texas, U.S.A.  
under open oak-pine woods along  
highway 132, ca. 37-38 km  
east of Livingston, Elev.  
~~ca. 1000 m.~~ 100 ft. m.

Plants indument, usually  
biennial and single-stemmed,  
sometimes biennial or second  
timed perennials & stems  
decumbent, white.  
Flowers 20-30 mm wide at  
first, pink, then becoming  
white.

11

*Hymenopappus artemisiifolius*  
DC.

*Hymenopappus* (E)

12057 May 1911 Polk Co., Iowa

In mixed oak prairie woods  
over limestone bluffs  
calf knuckle hairy leaf

Shrub

Stems slender upright  
flame colored flowers,  
lanceolate leaves  
bracts numerous, 2-3 in.,  
white

*Krigia biflora* (Walter) ~~spp.~~

S.F. Blake ✓

3303 ✓

*Krigia biflora* ~~spp.~~

12058 Act Kaye & Thorne

8 June, 1987. Millard Co., Utah.

Along the receding margin of  
Scipio Lake, ca. 27 km. by road  
(U.S. 50) northwest of Salina,  
Sagebrush zone. Elev. 1800 m.  
Twp. 20 South, Range 2 West,  
Section 2.

*Utricularia vulgaris* L.

*Utricularia vulgaris* (5)

12059. AC & Kaye H. Thorne.

9 June, 1987. Kane Co., Utah.

On rocky (sandstone) northeast slope of Paria Canyon, ca. 2 km southeast of old Paria, and 65 km. east of Kanab.

Township 41 South, Range 1 West, near the corner of Sections 17, 18, 19, and 20.  
Elev. ca. 1450 m.

Sagebrush zone. Taprooted perennial, usually with several stems. Flowers rich pink. Type locality of *Cirsium nidulum* M.E. Jones.  
*Cirsium arizonicum* (A. Gray) Petrow

(6. incl 3 sheet 1, 3 sheet 2)

*Cirsium arizonicum*

12060 AC & Raye H. Thorne

9 June, 1987, Kane Co., Utah.

Same place as 12059

Rays 13-28, lavender,  
it is not white - typological?  
or "minim" minimum?

*Erigeron utahensis* A. Gray  
var. *utahensis*

✓

*Erigeron utahensis* (3) 6

12061 AC + Kaye H. Thorne.

9 June, 1987. Kane Co., Utah

Sandy clay floodplain of Paria River, ca. 1+ km. southeast of old Paria, and 65 km. east of Kanab. Sagebrush zone.

Township 41 South, Range 1 West,  
Section 18. Elev. ca. 1450 m.  
Taprooted, many-seeded  
perennial. Heads yellow.  
Rays 7-13.

j ✓

*Chrysopsis villosa* (Pursh) Nutt.  
sens. lat. -

(3)

*Chrysopsis villosa* e

12062 - AC + Kaye H. Thorne.  
9 June, 1987, Kane Co., Utah,  
same place as 12061.

Only one plant seen,  
flowers dull purple.

Orobanche ludoviciana Nutt  
var. cooperi (A. Gray) Beck



E

Orobanche ludoviciana ①

12063. AC & Kaye H. Thorne,  
10 June 1987. Juab Co., Utah

Gravelly roadside banks in the  
sagebrush zone along Interstate  
Highway 15, ca. 38+ km by  
road south of Brune.

Sagebrush Zone  $\nearrow$

Taprootted biennials up to 1.5 m  
tall, single-stemmed, Heads white  
to pale lavender. Two heads  
,, 1 rd . 174 and 255 flowers

Township 10 South, Range 1E ast,  
Section 33.

Corolla-throat longer than the lobes.  
*Cirsium neomexicanum* A. Gray

(9, incl 3 - net 1, 3 sheet 2, 3 sheet 3)

12064 24 Aug., 1987

A.C. & Eric F. Lamont

Rocky, bushy open slopes above timberline on the north <sup>side</sup> of Mt. Washington, Presidential Range,

New Hampshire, shortly above the 5-mile post on the Fall road. Elev. ca. 1450 m  
Part of an apparent hybrid swarm between *B. glandulosa*

and a dwarf alpine phase of  
*B. papyrifera*  
florally caespitose.

*Betula "X minor" (Tuckerman) Fern.*

*Betula "minor" ①*

12065 24 Aug. 1932.  
AC. & Eric E. Lusk  
Sawyer, 1930 12064.  
Fls. white + all.

*Betula glandulosa* Michx.  
var *glandulosa*



B. glandulosa (1)

12. - *Betula* sp. L.

24 Aug., 1957.

Some places wet & cool.

Plants ca 1 m. tall.

~~betula~~

Part of an apparent hybrid  
swarm between *B. glandulosa*  
and a dwarf alpine phase of  
*B. papyrifera*.

*Betula* "xminor (Tuckerman) Fern."

12067 Logan Co., Colo.

Stems along roadside  
in prairie ca 19 km.  
west of Sterling.

Single-stemmed, reported  
annuals up to nearly 1 m. tall,  
with milky juice.

Bracts white or greenish.

Petaloid appendages

(one missing from what  
would be a symmetrically  
disposed set of 5).

*Euphorbia marginata* Pursh

Euphorbiac.

12067

12068. 5 Sept 1987.

Grant Co., Utah

Sandy slopes along the  
Colorado River, ca 16 km  
upstream from the  
road crossing just north  
of Moab. Twp. 25 S., R. 22 E.  
S.H.e. 3. Elev. ca. 1250 m.  
Typical annual up to  
nearly 3 m tall, larger plants  
commonly visible above  
very large number.  
Petiolate.

*Lepidium latifolium* L.

*Lepidium*

✓ (5) ✓

96.18

12069 5 Sept. 1937. ~~Y~~

Grand Co., Utah. Disturbed  
granitic substrate along  
the road on the north  
end of the La Sal Mts.,  
overlooking the upper end  
of Castle Valley, ca. 20  
km. air line east of Moab.

Twp. 26 S., R. 24 E., ca. S. 5.  
Elev. ca. 2300 m.

Perennial with several  
loosely clustered stems,  
spreading by rhizome  
etc. Flowers reddish  
purple lavender, a few  
pinkish white.

*Mirabilis linearis* (Pursh) Seiner!

mid. l. 3

7

✓

12/10 - Report 87.

Same place as to 12069.

Reported biennial up to

1.5 m. tall, freely branched  
and many-headed. Flowers  
single (usually short),

numerous (especially)

Heads numerous, lavender-purple. Glabrous shining  
brown, 6-7 mm long,  
resistant to wetting.

Perennial up to 1.5 m. tall, spreading or  
creeping, 1-6 cm. diam. branched

*Cirsium tracyi* (Rydb.) Petrak

(3 in) (stems, lvs, fls, lvs at base)

12071 - 5 Sept 67. The S.A. little  
Brushy mountain, 1 hr.  
La Palma, shortly north  
of Lares. Lat. 19° 7' N., 265,  
134 E., ca. S. 33.

Sinc. ca 2300 m.

Range 17-23, 14-20 mm  
long, bright blue-black -  
purple.

*Aster laevigatus*  
var. *laevigatus* A. Gray

Actinomyces fimbriatus

12072 5 Sept 67.

~~Sonoma~~ Co., Utah meadows  
at edge of spruce forest  
on the west slope of the  
La Sal Mts., ca 4 km. beyond  
the west of Geysir Pass.

Elev. ca 3000 m.

Plants up to 1.5 (or nearly  
2) m tall; single stemmed,  
evidently short-lived,  
but no separate basal  
rosettes seen. Flowers  
in stem strict, erect,  
which short, ascending  
peduncles branch.  
Flowers white to pale

Chambers.

*Cirsium scopulorum*  
(Greene) Cockerell

✓

✓

inches

④

73.19

12073 5 Sept 1987

<sup>Sen. ssp.</sup>  
Grand Co., Utah. Edges of  
spruce forest on the west  
slope of the La Sal Mts.,  
ca 3 km. west of Hesper  
Pass, Twp 27 S., R. 24 E.  
Elev. ca. 3000 m.

*Senecio serra* Hook.  
var. *admirabilis* (Greene)

A. Nels.

✓

✓

5

in

Herbarium number; 367

2074 - 6 Sept 1934.

~~San Joaquin~~, Calif. Sandy  
desert slopes overlooking  
~~Hot Creek~~ to the south,  
ca 45 km south of Mono.  
Twp. 29 S., R. 23 E., S. 34.

Elev. ~~1000~~ 1800 m.

Flowers 1-1.5(-2) m. tall.

Flowers yellow

— Hook and Ladder Yucca

✓  
*Chrysanthemus coronarium*

(Pursh) H. M. Hall

recognition (Hull.) H. M. Hall

✓

*Chrysanthemum*

5

963

12075, b Augt 1887

~~Canyon~~ Co., Utah

Sor Juana  
Same place as 12074.

Annual, up to 1 (-1.5) m. tall.

Rays yellow ~~not yellow~~,  
11-15 (-17) yellow, 2.5-3.5  
cm long. Disk dark, with  
a white-bearded center.

*Helianthus petiolaris* Nutt.

(the fallax phase)

✓ ✓

*H. petiolaris*

①

12076 6 Sept. 1987,  
Same place as 12075,  
Annual, flowers 5-6,  
pink-lavender.

*Stephanomeria exigua*

Nutt.



*Stephanomeria exigua* (5)

120<sup>27</sup> (Sept 87).

Somewhat as 120<sup>34</sup>.

Stems numerous, clustered  
on a taproot. Rays

10-17 mm. wide, 10-14 mm long.

*Chrysopsis villosa* (Pursh) Nutt.,  
sens. lat.

*C. villosa*

⑤

12078 6 Sept 1957.

Same place as 12074.

Plants up to 8 dm tall.  
Rays 19-27, rich blue-  
lavender, ranging to  
sometimes pale blue-lavender,  
10-14 mm long.

*Machaeranthera linearis*  
Greene

V

✓

⑤

*Machaeranthera linearis*

12079. #6 Sept 67.  
San Juan Co. Colorado  
Open, gravelly granite  
slope in aspen-spruce zone,  
along the ridge pass  
between Indian Creek  
and Johnson Creek.

*Cirsium centaureae* (Rydb.)  
K. Schum. (4) ✓

Abajo Mts, southwest of  
Monticello. Ca Twp 345,  
R 22 E.

Elev. ca 2900 m. Perennial with  
1- several stems together,  
spreading by deep-seated  
rhizome roots. Flowers all  
*Cirsium centaureae* Nuttall.  
#4811

12080 - 7 Sept 1987  
San Juan Co., Utah  
Rocky sandstone slopes  
and washes in piñon-  
-juniper community,  
overlooking Birch Canyon,  
7.5 km. by winding road  
north of junction with  
Utah road 375, east of  
National Bridge National  
Monument. Twp 36S, R. 18E.  
Alt ca 2100 m. Plants  
piñon-junipers and colonial  
leaves of succor. Ray (8) 10-14,  
very pale lavender, 8-11 mm long.  
*Aster glaucodes* S. F. Blake

*Aster glaucodes* S. F. Blake

12081 - Sept. 11, 1957

Nye Co., Nevada.

Dry alkaline meadows

just east of Durkee water.

Twp. 12 N., R. 56 E., S. 6. T.

Elev. 1700 m.

Rays 10-17, yellow,  
7-10 mm long.

*Haplopappus lanceolatus*  
(Hook.) Torr. & A. Gray

✓

10-17  
7-13

*Haplopappus lanceolatus* (S)

12082 Sept 11, 1939  
Moj. Co., Nev. Alkaline dry  
meadows just west of  
Duckwater. Temp. 13° N.,  
R. 55  $\frac{1}{2}$  E., S. 30° Elev.  
1700 m. Taprooted,  
biennial 7-11 dm tall.  
Flowers pink - lavender  
pink-purple to nearly  
~~white~~ white

*Cirsium mohavense*  
(Greene) Petrak

3, ind 1 sheet 1 abd, 1 flw 13

*Cirsium mohavense*

12083 Sept 1, 1937

Nye Co., Nev.: same place  
as 12082. Shrub up to

ca. 7 dm tall. Flowers  
5, white. Involucral  
bracts only poorly  
aligned ventrally

*Chrysanthemus albidos*  
(M.E. Jones) Greene

✓

Chrys. (5)

~~12084~~ Sept 2, 1987

~~Mono Co., California~~

~~Basaltic cliffs and coarse~~

~~talus 1 km. east of~~

~~E.~~

~~base of the road~~

~~(California 163)~~

~~from ~~Wedge~~ Westgaard  
Pass along ~~the~~ California  
road 163, south end of  
the White Mts. Twp~~

~~Range~~

~~Elev. ca. 1950m.~~

*Hypolepsis*

12084 Sept 12, 1901

~~Marin~~ Co., Calif On

soil at cliff edge between  
Tulips in Paepen Canyon,  
ca 4 km. easterly  
from Westwood Pass  
along California road  
168.

Trape. 75., R 35 or 36E.

Elev. ca. 1950 m.

Finely branched, aromatic  
Shrubs up to ca. 1m. tall.  
Twigs glutinous. Scars  
punctate. Heads discoidal,  
yellow, with 20-25 flowers.

Haplo pappus cuneatus A. Gray

(5) ✓ ✓ ✓  
Haplo pappus cuneatus A. Gray

209.1 ✓

12085 - 12 Sept 1951.  
Maus b., etc., open slopes  
and scrub in the little  
<sup>Campito Meadow</sup>  
mts., near the Patzicah  
Cave, ca 33 km by road  
north of Westwood Pass.  
Elev. ~~3200 m.~~<sup>3209 m.</sup> Plants  
several-stemmed branched  
base, freely branched, up  
to about 5 dm tall.  
Trop. 35, R. 35E, 34E

*Artemisia halliana* Cronq.

V

210.2  
231.3

Snowfield Tax

⑦

12086 - Sept 12, 1987

Mono Co., Calif. Same place  
as 12085. A single shrub  
on a small, gravelly  
slope of a ~~short-leaved~~  
~~reed~~ of ~~a~~ ~~Artemisia~~  
~~not~~ ~~Artemisia~~ " a. halimoides

*Artemisia cana* Pursh



*Artemisia cana* ♂

12081 - Sept. 13, 1987.

Mono Co., Calif. Open, rocky

(granitic) scrubland & scrubby

slopes 0.6 km east of

Lake Tioga.  
Lassen Pass, west

of Lee Vining, in the

Sierra Nevada. Twp 1 N.,

R. 2~~E~~<sup>S</sup>, S. 30. Elev. 3000 m.

Finely branching shrubs <sup>3-5 ft tall</sup>  
with several slender  
stems from the base.

Flowers ca. 8-13 per head

*Artemisia rothrockii* A. Gray

1000-4000

800

*Artemisia rothrockii* (5)

12088 - Sept. 13, 1987.  
Mono Co., California.  
Rocky flat with scattered  
big sagebrushes and some  
~~and~~ big road Easterly  
from Lovers Pass in  
the Sierra Nevada.

Twp. 22E., R. 5 N.

Elev. ca. 2700 m.

Finely branching shrublets  
ups to ca. 7 dm tall

*Artemisia cana* Pursh

✓

G. Tolander • ⑤

12089-15 Sept. 1987. Harney  
Co., Oregon | along seepy  
flowing spring area at  
the southeast base of ~~the~~  
~~stream~~ Steens Mt.,  
~40 km. by road northwest  
of Fields. Twp. 35 S. R. 32 E.  
S. 25 Elec. ~~at 1200 m.~~

Tapered, single-stemmed  
biennial, rarely 1-2m tall,  
shortly and narrowly  
branched upwards, or  
longer plants will have  
longer ascending branches  
beyond further down. Heads  
small, often bristly.

just south of mouth  
of 3-mile Creek

To next page

17039 - Cratf

Involucral bracts  
nearly closely appressed,  
yellowish leafy, a prominent  
gray-white glutinous  
dorsal ridge, and  
short abruptly  
~~or~~ spreading-ascending  
spine. Plants rather  
soft for a thistle, with  
hollow stem.

3, and 1 sheet 1, 1 sheet 2, 1 sheet 3

*Cirsium longipes*

12089 - 13 Sept 1987. Harvey  
Co., Oregon Along seepy  
flowing spring area just  
south of the mouth of  
3-mile Canyon, 40 km. by road  
<sup>southwest base of Steens Mts.</sup>  
northwest of Fields. Twp.  
355, R 32E, S. 25. Elevation  
1400 m. Taprooted ~~spiral~~ columnar  
single-stemmed biennial,  
mostly 1-2 m. tall, shortly  
and narrowly branched  
upwards, or larger plants  
also with a few longer,  
ascending branches from  
farther down. Heads small,  
yellowish-brown. Involucral  
bracts with closely

↓ to next page

appressed, greenish body,  
a prominent, gray, whitish,  
glutinous dorsal ridge,  
and a short, abruptly  
spreading spine.

Flowers lavender-purple.  
Plants hollow. Stemmed  
and soft as a thistle.

*Cirsium douglasii* DC.

✓

✓

(3, incl 1 sheet 1, 1 sheet 2,  
1 sheet 3.)

*Cirsium douglasii*

12090 - 19 Sept 1987.  
Mineral Co. Co., which  
scattered ~~rocks~~, mostly on  
gentle, gravelly west slope  
ca 8500 ft. by road south  
of St. George, Utah.  
Twp. 36 N., R. 11 W., sec. 34.

~~Erysimum~~ <sup>1650</sup>  
Soft leaf-shrubs ca. 4-6  
dm. tall. ~~fls.~~ <sup>13 to ca.</sup>  
Involucels bracts ~~leafy~~.  
Rays yellow, mostly 8,  
11-16 mm long.  
~~Horsetail~~ <sup>1000 ft.</sup> ~~steamy Mt.~~  
North face of Powloly Mtn.  
*Senecio longilobus* Benth.

25<sup>1/2</sup>

*Senecio longilobus* (6)

12091-19 Sept. 1953.  
Mohave Co., Arizona. with  
scattered sagebrush and  
Pinyon-juniper on rocky  
(limestone) slopes, slightly  
below the head of Pigeon  
Canyon. Arizona Strip,  
ca 120 km. by road south  
of St. George, Utah.  
Plants loosely colonial  
by culping or bezenets.  
Type ~~32~~<sup>33</sup> 34 N., R. 12 W., S. 7.  
Elev. ca. 1700 m.

*Artemisia carruthii* A. Wood

30, 3

*Artemisia canth. C*

12092 - 19 Sept 1987  
Mohave Co., Arizona

Roadside in sagebrush  
zone, quartzite substrate,  
ca <sup>120</sup> km by roads. of  
St. George Hatch, on the  
road to Mt. Dellenbaugh  
Dellenbaugh, ca 3.5 km.  
south of the turn-off to  
Pigeon Canyon.

Type <sup>33</sup> 34 H. R. 1. W. S. 4  
Elev. ca 1700 m. ~~531035.~~

Perennial, spreading by  
deep-seated creeping roots.  
Plants stout but low,  
only 2-6 dm. tall.  
Flowers rich carmine to  
almost crimson  
 to next plant.

*Cirsium ochrocentrum*

A. Gray

✓

37.9

35.7

*Cirsium*

4 mid and 2 short,  
+ short 2

25 June, 1983 f.c.

Altai Republic  
USSR, Gorno-Altaysk

Autonomous Region, Foothills of  
the ~~Altai~~ Altai Mts, ca. 50-60 km.  
southwest of Gorno-Altaysk, in  
the valley of the Sema River.  
In dense, low, herbaceous  
vegetation under scattered  
trees of *Betula pendula*.

Elev. 900 m.

Plants with slender rhizomes  
and white flowers

*Cerastium pauciflorum* Steven

*Cerastium pauciflorum*

12074-25 June 1988

U.S.S.R. A.C. et al.

Same basic localities

12093

Open, south-facing  
Schistose cliffs at outcrop  
at 700 m. elev. Betula  
pendula the dominant tree  
in the area

Freely branching shrubs up to  
ca 1 m. tall. Flowers white

*Spiraea trilobata* L.

/ /

*Spiraea trilobata*

(2)

12095 · 25 June, 1938.

Ms R Altai

AG. et al.

Same place as 12094

Open, south-facing schistose  
shrs - etc

*Eritrichium rupestre* ✓  
(Pallas) Bunge, sens. lat.  
(*E. altaicum* M. Popov)

*Eritrichium*

12096 - 25 June 2, 1962

Same place as 12095

7

*Stellaropsis altaica*  
(Thieb.) Rabed.

Flowers pinkish in bud,  
but the limb white  
on top when open

Stellaropsis

(*Stellaropsis altaica* (?)

12077 - 25 June, 1988.

Same basic locality as 12095.

AC et al.

Open, south-facing, schistose slopes, Eleu, 600m.

Stems clumped or solitary.  
Ground flora base.

*Dracocephalum ruyschianum*

L.

Dracocephalum ruyschianum L.

12095

C. 1930

1500 m. elev., Foothills

of the Andes Mts. 65°

wood . . . Betula) on  
West-facing ridges (expositions  
facing) slope over-looking the  
Atalyn River. 1150  
near Chemat

USSR. So.  
1909 Aug. 20 open cliff-side  
on west-facing slope in  
Forest of *Betula pendula*  
(some *Pinus sylvestris*).  
Elev. 500 m.  
Flowers bright yellow

②

12098 : 26 June 1988

AC et al USSR

Same general place as

12098 - Open, West -

Facing rocky (schistose)  
slopes,

Flowers deep blue --

*Delphinium taxiflorum* DC.

✓

D. 1 f.

12101 26 June, 1988 AC

et al. Same place;  
place as 12012 - but in  
moist, mossy places on  
~~large~~ ledges along the  
river valley.

Flowers wh, fl

? *Saxifraga sibirica* L.

vj

(A)

1202 26 June

AC & Margarita Boranova  
USSR. Gorno-Altaysk  
Autonomous Region,  
Valley of the River  
Kuba, ca 10 km south  
of Chemal, and 75 km  
south of Gorno-Altaysk,  
Elev. 600 m.

Moist meadow near the  
stream. Flowers  
sky-blue.

*Myosotis caespitosa* Schultz

Myos

- 26 June, 1988

AC & Margarita Baranova.

USSR. Gorno-Altaysk

Autonomous Region. Foothills  
of the Altai Mts., open,  
east-facing slope

ca 14 km south of  
Chemal, and ca 80 km -

south of Gorno-Altaysk.  
Valley of the River Kuban.  
Elev. 600 m.

Stems clustered on a ~~short~~ short  
rhizome-caudex. Flowers blue

*Polemonium caeruleum* L.

12103 - 26 June 1952

-11

same place as 12103

*Delphinium laxiflorum*

Dc.

✓

*Delphinium* (2)

- 26 June, 1988

de et al

Cotoneaster *melanocarpus*  
Fischer

21

Patrinia intermedia

As 12/103

Patrinia intermedia  
(Hornem.) Roemer & Schultes

12407 27 June 1988.  
AC et al. near Gor'no Altaysk  
Autonomous Region. Basin of  
the River Sema, shortly north of  
Topuchaya  
Topuchaya, ca 100km south-southwest  
of Gor'no Altaysk.

### Altai Mts.

Wet, meadow-like communities  
with scattered *Larix sibirica*  
~~1200m~~ at 1200m elev.,  
single stemmed, fibrous-rooted  
perennial. Heads yellow.

Rays typically 8, sometimes  
only 5. Leaves erect, glaucous.

*Ligularia glauca* (L.) O. Hoffm.

*Ligularia glauca* (3)

12005 27 Jan 1968  
AC et al  
Same place as 12007

stem solitary on a short  
rhizome or crown. Flowers  
pale lavender to white.

*Geranium biflorum*

1209 AC - 21 - 27 June 1934

USSR. Gorno-Altaysk Autonomous Region, Altai Mts. in the basin of the Ursul River, ca 120 km south-southwest of Gorno-Altaysk  
Semi-open south slopes with  
*Larix sibirica* 1550 m. elev.

Shrub, 1-1.5 m high. Flowers white  
*Spiraea chamaedryfolia*

(4) ~~Spiraea~~ *Spiraea chamaedryfolia*

28 June '89

12110 - A.C. et al., USSR

Stems several ~~perennial~~ ~~annual~~

12009

Stems several on a compact,  
fibrous-rooted base. Flowers  
bright orange.

*Trollius altaicus* C.A. Meyer

*Trollius altaicus* (?) ,

12111 AC + Margarita Baranova  
USSR. - Gorno-Altaysk  
Autonomous Region - Altai  
Mts shortly east of Yakutsk  
and ca 130 km south-southwest  
of Gorno-Altaysk.  
Climbing over Spiraea on  
ridge just north of a  
major pass between the  
Charyshch and Ursul  
River basins. Tepols 4,  
white 28 June, 1986  
Elev. ca 1600m

Clematis sibirica (L.) Miller

Clematis sibirica (L.) Miller

12112 ACT Margarita Baranov

28 June 1988 On an open,  
west-facing slope with dense,  
low, herbaceous vegetation,  
~~Larix sibirica~~ the  
~~dominant tree nearby.~~

2-3 km north of a major pass  
- site as in 12111.

Elev. ca 1700 m.

Rays 36-58 (8 counts),  
blue-lavender.

Yabogai Pass

Aster alpinus L.

36-58

Aster alpinus (3)

12/13 ACT Margarita Barrios  
28 June 1980. Same place as  
12/12

Ele. ca. 1700m.

Stems solitary on a short,  
fibrous-rooted crown or  
caudex. Leaves glaucous.

Filaments bright white,  
narrowly petaloïd

*Thalictrum petaloideum*

*Thalictrum* <sup>Petaloïdeum</sup> ~~petaloïd~~ ③

12114 - 29 June, 1955

AC et al. USSR Gorno-

Altaysk Autonomous Region  
Open moist places ca. 3 km  
east of Yabagan Pass.

Altai Mts. ca 130 km

South-southwest of Gorno-Altaysk.

Elev. 1300 m.

Freely branching, rather  
brittle shrubs < 1.5 m. high.  
Flowers white

~~Very many small, very + tuberous~~

*Sibiraea altaiensis* (Laxm.)  
Schneider

Brown

*Sibiraea* (Laxm.)

12/15-27 June, 1988 AC &

Margarita Baranova USSR

Gorno-Altaysk Autonomous

Region. Altai Mts.

Shortly southeast of Khabarovka,  
and ca 130 km south of  
Gorno-Altaysk.

Dry, open south slope,  
amongst granitoid rocks  
Flowers pink-lavender

*Goniolimon speciosum* /  
(L.) Boiss. ✓

*Goniolimon speciosum* (6)

1216 : 3 June 1908

AC & Margarita Baranova,  
Same place as 12115, but west  
slope.

Plants spreading by slender  
rhizomes. Flowers light  
greenish-yellow

*Galium coriaceum* Bunge

✓ /

*Galium coriaceum*

12117-29 June, 1958 AC &  
Margarita Barahona.

Same place as 12115 - but  
Open, granite slopes  
~~[no dification]~~.  
Flowers lavender

*Phlomis tuberosa* L.

~~Flowers lavender~~

Phlomis tuberosa (3)

12/18 7:00 a.m. +  
Margarita Baranova  
same place #5 12/16 \*

Campanula sibirica

Campanula sibirica L.

L  
Campanula sibirica (?)

12119-30 June 1988, Act  
Margarita Baranova, USSR  
Gorno-Altaisk Autonomous  
Region, Altai Mts. 1200m,  
elev. Semi-open places, with  
*Larix sibirica* on a granitoid  
ridge shortly southeast of  
Khabarovka, and ca. 130km  
south of Gorno-Altaisk  
Stems clustered, erect.  
Flowers ochreous, almost  
white

*Astragalus follicularis*  
Pallas

✓ ✓

*Astragalus* ②

12120 30 Aug. 1908

A C + Margarita Warren  
Same place as 12119.

Flowers bright pink.  
- lavender

*Centauraea sibirica* L.



12120

(2)

12121-30 Jun. 1983.

G. & Margarita Gerona

Same place as 12117.

Flowers sky-blue.

*Eritrichium rupestre*

(Pallas) Bunge, sens. lat.

(*M. subrupestre* M. Popov)

✓

✓

Eritrichium (3)

12122-36 June, 1965.

AC + Margarita Baranov

Open, well vegetated slope.

ca 1100 m. elev. Siberian  
sum. plants at 1200.

*Leontopodium ochroleucum*

Beauv.

vart. *campestre* (Ledeb.) Grubov

*Leontopodium* 67~~18~~

12123-30 June, 1938. T. S. I.,  
U.S.S.R. Gorno-Altaisk  
Autonomous Region.  
Overlooking the Katun River,  
c. 160 km south of  
Gorno-Altaisk (Altai) Mts.

sandy, gravelly, open low-lying  
 slopes. 700 m.  
 open, broad-leaved, spring  
 shrubs 2-3 m tall.  
 Flowers yellow.

Caragana pygmaea (L.) DC.

Caragana pygmaea

12124-30 June, 1983. AC

et al C.S.S.C. Gorno-Altaic

Autonomous Region, Altai Mts.

ca. 160 km. south of Konda-

Altay. Elev. ca. 600 m.

Firky, gravelly granite  
bank overlooking the Katun  
River. Rays ca 18-30,  
blue-lavender

v

*Heteropappus altaicus*

(Willd.) Noropokr.

12-30+

*Heteropappus*, *altaicus* ✓

12125-30 June 1951. No. 12

M. G. -ita Baranova.

USSR. Gorno-Altaysk Autono-  
mous Region. Loose, sandy,  
yellowish slopes overlooking the  
Katun River. Altai Mts  
ca. 160 km. south of Gorno-  
Altaysk Elecn. ca. 600 m.

Guldenstädta  
monophylla Fischer



1600 m.

(2)

July 22, 1955 ACT

Margarita Barrova. USSR  
Soviet Autonomous  
Region, Altai Mts. Stony.

Alluvial ridge between the  
Katun and Chuya Rivers, ca.  
160 ~~km.~~ km. south of Gorno  
-Altaysk. Elev. ca. 600 m.

Flowers bright lavender.  
purple.

*Scutellaria grandiflora* Sims

*Scutellaria grandiflora* (?)  
~~(Altayum)~~

12/27/55  
Morrison

Common Name, bird's eye

Leaves opposite, elliptic,

Flowers purple, pinkish  
below, corolla white,  
with reddish stripes outside

*Convolvulus ammanni* Desr.

— Convolvulus (?)

12, 28 July, 1958  
AC & Margarita Baranova  
USSR - Gorno-Altaysk Autonomous Region, Altai Mts.  
ca 160 km. south of Gorno-Altaysk. Loose, stony, sandy alluvial slopes just between the Katun and Chuya Rivers.  
Elev. ca. 600 m. Flowers blue

*Polygala tenuifolia*  
Willd.

✓ ✓

blue

*Polygala tenuifolia* (3)

12129-1 July, 1983 A.C.L.  
Margarita Basmane, USSR

Gorno-Altaysk Autonomous  
Region. Altai Mts. ca 1 km  
South of Gorno-Altaysk.  
Elev. ca 1000m.

In the shade of scattered  
*Betula microphylla* small  
trees on west slope overlooking  
the Chuja River. Rays  
18-33 (6 counts). blue-  
lavender.

—ca 30km above its junction  
with the Katun River.

*Aster alpinus* L.

*Aster alpinus* D

1922

12130 - 3 July, 1922

Central USSR Gorn Altay  
Tien Shan Region, Tiansai Mts.  
~~Gorkhi~~ South of Gorkhi  
Altay. Elev. ca. 1600 m.

1600 m

In addition to wide drift  
Chuya River, <sup>several</sup> bushy, well  
influenced willow patches.  
One single individual found  
at back of a narrow stem  
solid at one end & the short,  
fairly slender rhizome

At Gulak River <sup>south of Chuya</sup>  
*Veronica pozdyayevii*  
Vernonieae Paul.  
caudiflora

(2)

12131 - 2 July, 1958 field  
Margarita Baranova  
U.S.S.R. Soviet Altaysk Auto-  
nomous Region, ~~ex~~ km south  
of Gorno-Altaysk.

Ulagansky Pass  
Mtn. southwest facing lime-  
stone outcrop in Ilyulatay  
Park, Tscheloksky Range of  
the Altai Mts. Elev ca. 1325 m.  
Flowers pink lavender  
to white ✓

*Yarrowia officinalis* L.

? — ✓  
*Valeriana officinalis*

12132 - 3 June, 1988

Alt & Margarita Baranovka.

650 m. - Forest - meadow

Altai mountains region, ~~64~~

km south of Gorno-

Aitayska

Moist, hummocky meadow in  
Igulat sky Park, Igulat sky  
Range of the Altai Mts.

Elev. ca. 1525 m. Flowers

~~white~~ white. Anthers 2

Plants with the odor of vanilla

*Lagotis integrifolia* (Willd.)

Schischkin /

*Lagotis integrifolia* Schischkin /

12133 - 2 July 1988 A.C.L.  
Marguerite Baranov

Same place as 12132.  
Branching shrub 3-4 dm tall

*Salix caesia* Vill.



*Salix caesia*

12134 - 2 July 1953. 404

Margarita Baronova. USSR  
Gorno-Altaisk Autonomous  
Region. Altai Mts. ~~ca 1 km~~  
southeast Gorno-Altaisk,  
Edge of forest near  
Sorotuket Lake, Igulatsky  
Range. Elev. ca. 1850m.

Sorotuket Lake  
plants forming mats as in  
Arizona etc. Staminate  
bracts white, pistillate ones  
pinkish

*Antennaria dioica* (L.)

✓ Gorn. Alt.

✓ (1850m)

*Antennaria dora* ?

12135 - S. July, 1983. AC. USSR,  
Gorno Altaysk Autonomous Region  
Altai Mts. ca 160 km south of  
south-south-east  
Gorno-Altaysk, Elev. ca 2500m

Rocky, shrubby southward slope  
below open talus, ~~and~~ ~~and~~  
~~and~~ ~~and~~, ~~and~~ ~~and~~  
low shrubs 3-5 dm high, a mass  
covering hillside, which  
is very incisive, especially on  
the upper slope.

*Betula rotundifolia* Spach

*Betula rotundifolia* B.

12135. 1953, July 22  
USSR, Same place as 12133

Flowering like tufts on  
south-facing shale schistose  
talus, mixed w some  
timberline. Flowers soft  
yellow. elev. ca 2500m

Biebersteinia odora ~~Steph.~~  
Stephan

✓

✓

Biebersteinia

(3)

12137. 3 July, 1980 AC

Same basic place as 12135.

Forming loose mats on meadow-like schistose slopes below south-facing talus. Stems erect.

*Salix reticulata* Ledeb.



*Salix* "rectifolia" (3)

12/23 & 31, 1953  
at 1. 6 km. Gorno -  
Aksay River Region  
Altai Mts., Tuva.  
South-southwest of Gorno -  
Aksay and Sharyn River.  
Aktaš. El. 1,200 m.  
On south facing slopes above  
timber line. Stems either  
sometimes 2 or 3 together.  
Stems 1-2 m. tall,  
the main stem 1-2 m. high  
by the side secondary range.  
Diam. 13, or up to 21.

*Senecio cumbellae* Pursh

*Senecio cumbellae*

12139 - 3 July, 1988, Acetol  
USSR, Gorno Altai Autonomous  
Region, Altai Mts., ca 160 km  
south-southeast of Gorno-  
Altaysk, and directly north of  
Aktash. Elev. ca. 2000 m.

Open slopes ~~in~~ in a canyon  
a little above the stream.

*Macropodium nivale* (Pallas)

R.Br.

J.J.

*Macropodium nivale* (Pallas)

12139<sup>a</sup> 11 July, 1902  
AC + Margarita Baranova  
LSSK Gor'yanovskaya  
Altai Region.  
Altai Mts. between south  
Gorno-Altaisk,  
and north Aktau,  
elevation 2600 m.  
Rocky slopes in the  
valley, with some  
willows, grass especially  
on the ground.

*Salix reticulata* Ledeb.

*Salix*

②

1960 on grassy slope  
Baranova.

Same place as 1958  
Flowers open.

---

*Corydalis pauciflora*  
(Steph.) Pers.

1241 - 4 July, 1982 ACT

Margarita Baranova.

USSR. Gorno-Altaysk

Autonomous Region, Altai  
Mts., ca 160 km south-southeast  
of Gorno-Altaysk and shortly  
north of Aktash. Elev.  
ca 2000 m.

With *Larix sibirica* on *Pinus*  
*sibirica* on southwest slope  
Shrubs with clustered sprays  
2-4m tall.

*Salix jenisseensis* (F. Schmidt)  
Floderus

*Salix yamasiensis*

✓

12162 - 4 July, 1988. AC  
Same place as 1214.

Lax shrub ca 1.5 m. tall

*Lonicera caerulea* L.

✓

✓

*Lonicera*? *caroliniana* (2)

102148 - 4 July 1951

AC - Same place as  
12241. Flowers yellow.

*Scorzonera radiata*

Fischer



12144 4 July, 1983 Act  
Marg. H. Bartram

Same place as 12141

Arborescent, several-stemmed  
shrub 4 m tall; young  
leaves with a reddish cast

*Salix pyrolaeifolia* Ledeb.



*Salix pyrolaeifolia* (N.)

12 - 4 July July, 1955

AC & Margarita Baranov

11500' - 3000' Altaya - Baranov

Mos. Region Altai Mts.

El. ca 2030m

North slope, under taiga  
Abies and Pinus sibirica.  
Leaves dull pink, rounded.

*Pyrola asarifolia* Michx.



✓

*Pyrola asarifolia* Michx.

12146 - 5 July, 1988 ACF  
Margarita Basin USSR,  
Gorno-Altaysk Autonomous  
Region, Altai Mts.  
Elevation ca 1800m.

In fairly dry, slightly saline,  
grazed meadow along the Chuysa  
River, a few km west of Ak  
tash, and ca 160 km south-  
west of Gorno-Altaysk.  
Flowers lavender

*Astragalus adsurgens*

*Polygonum adsurgens*

Mele -

(2)

*Astragalus adsurgens*

12147-5 July, 1933

S. C. Margarita Baranov.

USSR-Gorno-Aktarsk

Autonomous Region.

Aktash Mts., ca 180 km south.  
Southwest of Gorno-Aktarsk  
ridge, 10 km N.E. of

Aktash. Steep, south-facing  
scree talus slope overlooking  
the Chuya River.

Elev. ca 1200 m.

*Lagopsis marginata* strum

(Stephan) Tikhm.-Gal.

v

scr -> SCR

*Lagopsis marginata* Linn. (2)

12148 - 5 July, 1956. No.  
USSR Gorno-Altaysk Autonomous  
Region, Altai Mts. ca  
160 km south-southeast of  
Gorno-Altaysk and a few  
km. west of Aktash. Elev.  
ca. 1400 m. —

In dense herbaceous and  
low-shrubby vegetation on  
west slope of a canyon.

Stems solitary from a  
fibrous-rooted crown. Leaves  
glaucous. Rays yellow (4)5(6)  
Elev. 1400 m

*Ligularia altaica* DC. ✓

*Ligularia*

(2149-5 July, 1985: A.C.E.)

Margarita Baranova USSR

Gorno-Altaysk Autonomous

Region, Altai Mts. ca

160 km. south-southeast  
of Gorno Altaysk.

Stee, loose, south-facing  
schistose slope overlooking  
the Chuya River, a few km  
west of Altash.

Flowers bluish-purple.

Elevation 1400 m.

Orobanche caesia Reichenb.

Fls blue ~~blue~~ <sup>purple</sup> ✓

Wtch. by C. ~~Wtch. by C.~~

12150 6 July, 1988 AC

USSR. Gorno-Altaisk  
Autonomous Region.

Altai Mts. ca 160 km south of  
Gorno-Altaisk. Drainage of  
the Katun River, a few km  
southeast of Kupchegen.

Steppe, steppe like south  
slope. El. 1100 m

*Artemisia campestris* L.  
subsp. *borealis* (Pallas) H.M. Hall  
+ Clements

*Artemisia "borealis" (3)*

12151 6 July 1916

Same place as 12150

Flowers white to

ochraceous. Stems  
mostly branching.

*Astragalus papillatus*  
Ledebour.



*Astragalus* <sup>white</sup> <sub>var.</sub>

12152 > fl. sp. n.  
+ sp. USSR Gorno-Altaysk  
Autonomous Region. Altay.  
Mts ca 90 km south-southwest  
of Gorno-Altay. In basin  
of Sana River, not  
far north of Tchelchak.

*Bergenia crassifolia* (L.)  
Fritsch.

Fls pinkish  
Erect

121537 1000-1010  
SSR Gorno Alatau  
Talau, Kazakhstan  
Same place as 12151.

*Vaccinium myrtillus* L.

Loc

W.W. Wrigg (7)

2000' - July 14, 1968 A.C. (lat.)  
Same place as 1215.  
Flowers yellow.

*Myosotis silvatica* Hoffm.,  
sens. lat.  
(*M. krylovii* Serg.)  
✓

12156 - 8 July 1968  
A.C. & Margarita Baranova  
USSR - Gorno-Altaysk  
Autonomous Region.  
Altai Mts. near Cherga,  
ca. 50 km southwest of  
Gorno-Altaysk,  
Open, rocky hillside  
overlooking the Semen River  
Elev. ca. 500 m.  
Flowers dark blue.

*Delphinium Taxifolium* DC.

✓

*Delphinium* (?)

12157 9 July, 1988 AC

USSR Gorno-Altaysk

Autonomous Region Altai  
Mts., ca 100 km southwest of  
Gorno-Altaysk.

*Gypsophila patrinii* Ser.

On southeast-facing  
schistose cliffs, ~~ca 1500 m~~  
of

Plant's habit: shrubby at the  
base. Flowers light  
pink lavender

*Gypsophila patrinii*

12°54' - 9 July, 1958 \*CHMB

USSR. Gorno-Altaysk,  
Autonomous Region. <sup>Altai</sup> Mts.

Pass atop the Aniisky  
Range - not far from Mariinsky  
village ca 100km southwest  
of Gorno-Altaysk

Aniisky Range Elevation  
1300 m.

Plants forming loose mats.

♂ bracts white

♀ bracts pinkish

Fls. f + ridge top in hab.  
s, b. in. Betula pendula L. (2)

*Antennaria dioica* (L.)

Gaertn.

Ant dioica (?)

12159 - 9 July, 1988 ACT  
Margarita Baranova 9 July, 1988  
Gorno-Altaysk Autonomous  
Region, Altai Mts. ca.  
100km southwest of  
Gorno-Altaysk.

Open, rocky (limestone)  
but well vegetated slope  
on the west side of the  
Anuisky Range.

Flowers reddish-pink,  
white with a pink tinge  
yellowish or greenish  
Drainage of the Any River  
Larch silica + the dominant tree  
*Onosma simplicissimum* L.

*Onosma simplicissimum* L.

1000 - 1500 m. - USSR. 11.  
Gorno-Altaysk Autonomous  
Region - Altai Mts. ca 100  
km. southwest of Gorno-  
Altaysk. Open dry meadow  
vegetation <sup>west</sup> limestone slopes  
on the west side of the  
Altai Range. Elevation 800  
m. Flowers yellow.

Province of the Altay River  
Larik divide the limestone area  
*Hypochaeris maculata* L.

Asperula

12161 - 16 July 1983. #C  
Gorno-Altaysk Autonomous  
Region - S. Low meadow  
along the Sonar River,  
near Cherga, ca 45 km  
Southwest of Gorno-  
Altay. Eleo., ca 4500 m.  
Shrubs ca 1-1.5 m. tall.  
Flowers white, late blooming.

*Myricaria alopecuroides*  
Schrenk.

Y

Myricaria alopecuroides (3)

Bridgeman 85 → for A.T.  
Pleuroperma for A.T.

Fowler & Gabrilyan  
(both need recontact or  
as formal participants.)

Better if Utah can  
pick up air fare from  
H.F. Casdell can  
handle Moscow H.Y.  
and expenses in return

In the *Tetragonium*  
*ceratophyllum* group,  
the scape arises laterally  
just back of in the center of  
the rosette

39437 at Laramie 20 AM

39845 at S.L.C 21 Sept 1941

40013 at Ogallala

40013 at Ogallala 24

40475 at Laramie 23 AM

40709 at Keeneburg Colo. 24 AM

41255 at Amarillo 25 AM

41930 at S. Toledo 26 AM

41498 at Wichita 26 AM

33-34 wings in Macleayella  
in montana - Cole.

Indoles of undulated  
Wavy in form, the g & r  
evident but not strong.  
Spines to 7 to 8 mm.

Flowers with corolla  
pink 2 style (sp)  
5 mm<sup>4+</sup>, 39<sup>1/2</sup> to  
corolla 37<sup>1/2</sup> mm <sup>to</sup> <sup>anterior</sup>  
deepest sinus B. 5 mm  
at least ca 7 mm  
9

shoulder 34.1, 34.9  
ell. nearly 13 mm.  
rim around 35.35  
10.6 at the rim. 11.6

10 at 8.6

achieve extramaterial  
brows. 78 cm, tending  
to be bald at alifetime

5/11  
9/1975  $\sim L + \frac{5}{8}$



Thistle

34 N, 12 W, S. 32

Takes seed on the wet. From

Tremont Hill, but right down  
(west) in Main Street  
valley just south of  
Pleasanton Falls

Altitude - 800 m., on a thin  
light brown, broken alluvium  
definitely creeping & below  
ground - colonial only  
3-8 ft. tall, and ca 3, 3.5  
in height, 2 m thick end,  
firmer at surface because  
25+ m thick.

~~3000~~

1.58  
42  
63

3937

at 11000' and going  
to gold and copper-bearing  
metamorphic deposit,  
but not all copper.  
Highway 101 (Lengate)  
Mazatlan, and extended.  
Type locality, probably  
C. 12. *S. spectabilis*

---

My Gilia site compound  
is 62 miles (100 km) west  
of Mazatlan, at 5900' (1800 m.)  
in 35°40' 12" W. 45° 28"

Airplane - ~~Highway Rd~~  
about 1 hour to La Junta with  
all up a bush & down in  
pines, good roads & lots of gas.  
25-30 miles to get west  
and to Hwy Tent Creek  
Road - Hwy Bn 4118  
= 13 miles to get west  
airplane ~~Highway Road~~  
~~to Hwy Tent Creek~~  
to Hwy Tent Creek  
+ 200 = 3 miles.

25  
S. ~~34~~ 35 S, 32 E.

1400 m.

just south of 3-mile  
Creek.

---

39135 Sat. 19 AM. Rd 9.  
20' 75 ft. Diamond Butte

11-1

L. squamata 4, 52 nego

Helen L. Larson

1987-2, 5, 11 am

Colorado Flora: western slope

W. A. Weber

Colorado Associated Univ. Press

Boulder CO. 1987

93.3 Long. 111° 570  
66.9 Elevation

503 754 4106  
752 2646

June 18 -

Se Malheur - little  
evidence former - Justice  
Mc Dermitt <sup>n 3</sup>  
405, 46E 5,1? <sup>3</sup>  
east of Anderson  
Crossing of Little Cr. N.  
Common along edges  
intermittent streams  
lithistic crm.

44 0905 - 1000

36887.8 - ~~Canyon~~

37160 - Tampana 11 Sept

127 Goldfield

141.3 Oct. 826.6

37289 Beartop - 12-13 Sept.

37521 - 41.0 501.6, 14.26

531.25 Moulton jet 4955

37772 - French - 16-17

968.7 0 500 - 5400

38289 - 6 Beans 16

241.4 McDermitt

38414 - W. Laramie Cr. 2. 17

38806 500 0-18

the slender peduncles  
in the calyxes  
downward, pointed

leaves stiff and linear,  
the hairs not fully appressed  
but all the same direction,  
leaves narrowed to a  
subacute point, strictly  
pinnately compound, the  
leaflets oval, pointed,  
about 1/2 in. long,  
fully elongated <sup>when</sup> & slightly  
lanceolate, broadly  
opposite to a long, very  
narrow tip, somewhat  
entangled, long - x 21,  
3-3.5

35682 at Meab. -

enc. 1 left Friday

35622 noted

2nd

3rd

3rd

100,0

ca. 100' "

7-8? Specimen

37.2 Goldblatt

10.5 " " "

38.76" " " 11.5. mtf

96.3..

802.05 per. 1.66 ft?

843.6 1.66 ft?

35670.2 8.52 ft

Scooter's Kester

213-744-3378

~~69~~ 693-0771 x 423

AM 7:30-8:00

255-2761 after 7PM

908.0 ft 7 depth

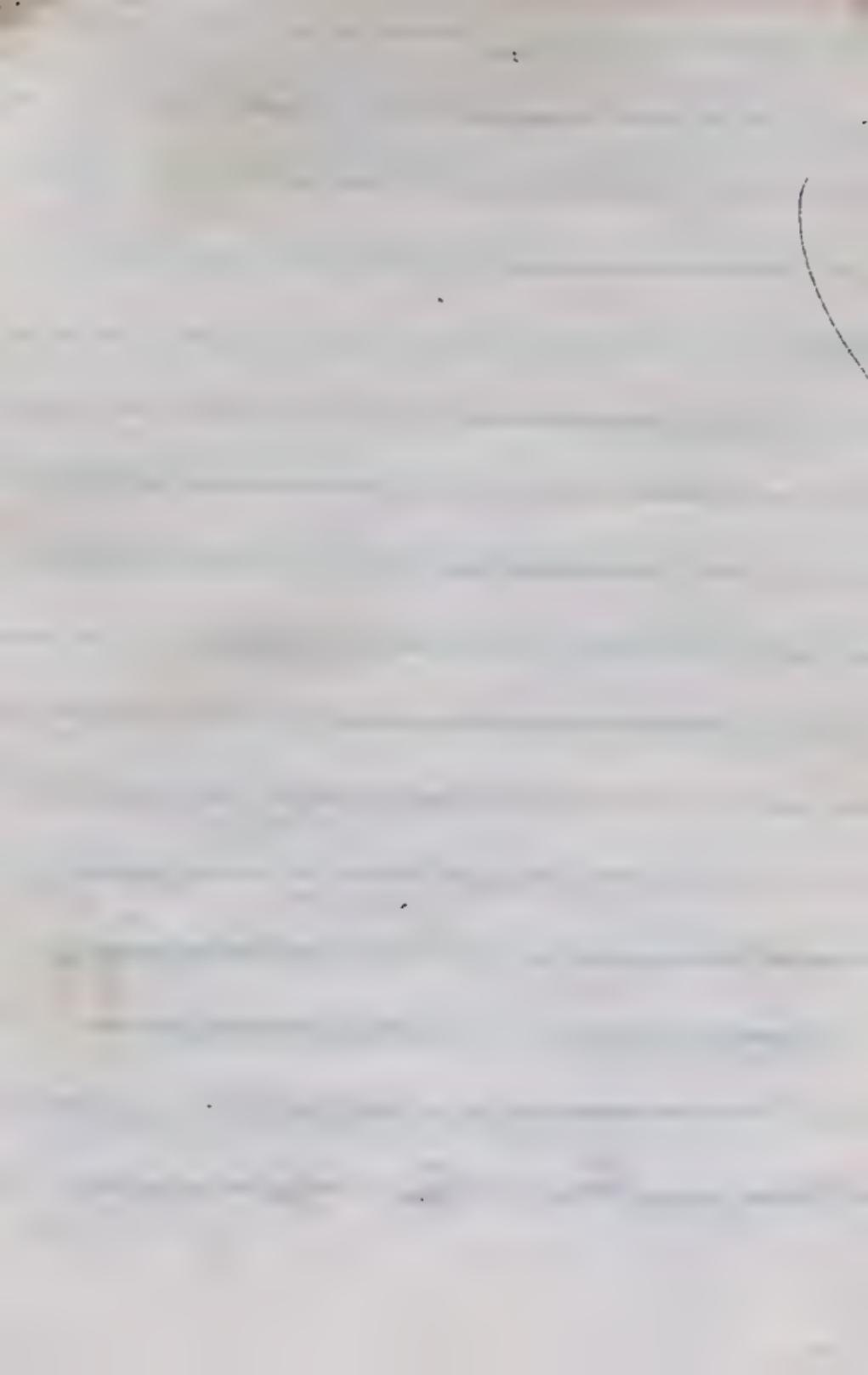
922 800 ft

36104 - Green River

36340 S.L.C.

36431 - 1990

36710 - Wadsworth  
711



Pastinaca has sometimes  
twice canyoned.

32 398.1 - 1

32 742 - 2.5 in diam

33 132.0 - 4 ft. 24" dia

33 3.0 - 10 ft. 14" dia

32 2.8 me. wide

10 ft. 14" dia

Table 1:00

2.10

34641 - 3.0 26

Ovalia in median

1.00 24 )

1.00 4.15

1.05

32 126.5 - 2.5 in dia.

32 294 - 10 ft. 14" dia Sept

Geological Survey  
W. L. Lusk  
Mississippi

*Q. alba.* Lower surface of  
yellow leaves pruinose  
with a thin, loose, white  
slightly wavy stellate  
laminations, often pale  
and glaucous

April 1900  
in much pruinose  
and pale foliage.

Peculiar, esp unpubl'd  
Sensoryial states in  
Rhamnaceae, Celastraceae  
(Hydrangeace, & Grossulari-  
aceae). What prob?

p. 233 & ms

(912). April 25  
SAVANNAH RIVER, SC (CONT'D)  
TEN MILES

This is a locality of  
Q. nigra which is at least  
one foot in diameter  
here...

It appears to be at Gandy's  
crossing and I think it is  
the same tree as the one marked  
when I was there.  
about 100 years old by then.

Brookfield first - westward  
Cottage below ~~in valley~~  
the River

Then 165 - first -  
crossed with right  
- 1 mile N. across: again -  
then at Brookfield's Post.  
Westover Co., then  
red light - Woodlawn -  
crossed - then next  
red light - Hedway  
Road - turn right  
It's pretty black - :  
*C. mississippi*

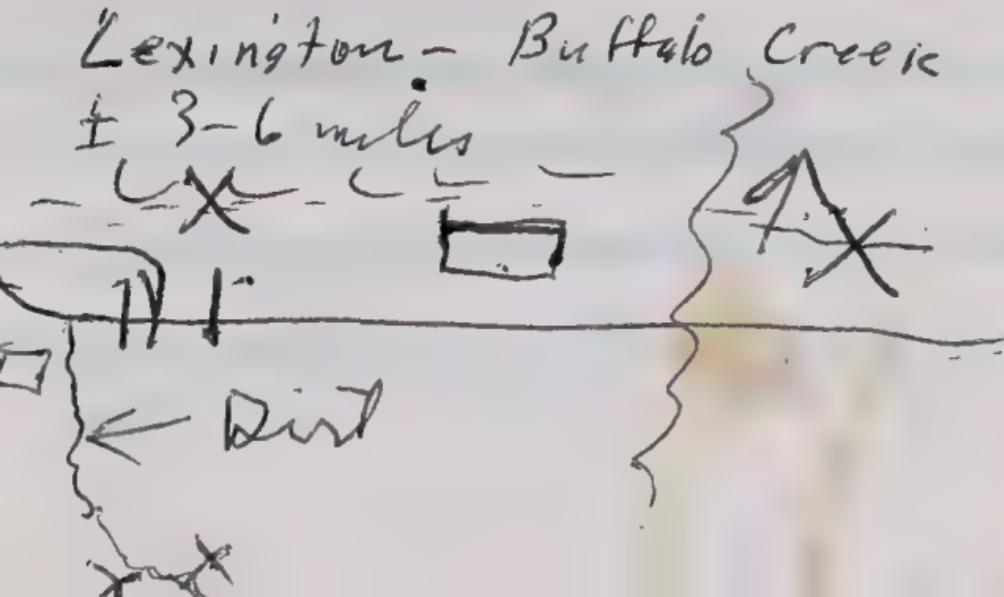
Ex. 1. . .

Take note *Arundinaria* to 10m.  
*Vicia tenuisperme* with  
4 or 5 slits.

---

Lexington - left front,  
Q. ogle - east side

Q. to mississippiensis  
Tlyrate  $\Rightarrow$  marginottee  
lowlands of La. & Miss.



Leucodendron. Cracked  
trunk, usually 2-3' leaves  
long, hairy, yellow flower,  
perfumed - fruit, small  
apple-like.

flexible - or otherwise  
leaves hairy, glaucous  
branches hairy like  
cottage houses.

---

Chrysanthemum  
yellow-flowered

Symplocos lindioria Lvs

Pubescent beneath - lvs. yellowish  
flame-colored with green veins

Laphria nitida Brauer

Subfossile

Chaenactis personata Jeps.

Sub-Chrysanthemum

Palafoxia linearis Gray

M.E. flowers Not found

213-825-3619

Warren.

Looked for *Oenothera*  
(common) or its

500 ~~at~~ 187

2000 feet 18

under undergrown vine

on relatively flat bank

just below right

bank of stream just

above bridge

then bridge to River

bottomland - swampy

bottom

~~Lomatium nudicaule~~

~~Stellaria media~~

Lomat. freric. ~~less p. lumbrikum~~

~~Lomatium nudicaule~~

~~Zizia aurea~~

Pionia dianae austriaca

sub. Lomatium

Wyethia scabriuscula attenuata

~~Hedysarum occidentale~~

~~Endemis frutescens~~

Encelia frutescens f. glandulosa

Parthenium alpinum v. ligulatum

Hemizonia pungens spp.

Solidago altissima

~~Hulsea glabra~~

Bartsia nemorosa

~~Satyrion spicatum~~

*Oenothera erythraea* sub

*Casperia* - to seat at 6-64

*Cornus canadensis* subsp.  
to leaf at 11

*Euphorbia corollata* subsp. m.

Sub. *Pittonia* included at 100%

*Enyonia dysodioides* Jones

sub *Pterophyllium* subsp.

*Laphamia peruviana* (L.) C. Nees  
ME found at 100% 147,

*Laphamia gracilis* ME J.

sat. *Parthenocissus*

*Laphamia fastigiata* C. Nees

Sub *Leptodeira* F. Muell.

*Lapponia congesta* ME Jones

*Oenothera exilis* R. & S.  
sub *Commissaria* ex

*Oenothera exilis* Bailey  
sub. ~~oblonga~~

*Oe* ~~minima~~ <sup>subsp.</sup> ~~minima~~ Mayr.  
sub *missionis*

~~Sphaeralcea~~ *hastata* Grindley  
sub *Commissaria* pallida

~~Oenothera~~ *terminalis* R. & S.  
sub ~~oblonga~~

*Oe* ~~dentata~~ *var. glauca* Mayr  
sub *Commissaria* ~~terminalis~~

*Glycyrrhiza lepidota* ~~lepidota~~ Willd.  
~~leptophylla~~

*Glycyrrhiza lepidota*  
*Glycyrrhiza lepidota* —  
Glyc. sp. <sup>sp. prostrata</sup>

Dwarf Alpine Flora

SUB ARCTIC FLORA

Euphorbia pulcherrima

sub E. macrorhiza

Linus lewisii var. alpinus

~~P.~~ P. glandulosus sp. borealis

Atropa ~~Atropa~~

Carum montanum Blaikieana

sub. Persicum

Podistera althaeoides Jeps

sub. Oreottis alpina

Aletys macdougalii sub. breviscapa

sub. Cymopterus niger

Cymopterus alpinus

~~var. alpinus~~

Corynephritis ciliolata Juss

sub. C. longistylis



*Epilobium brevistylum*

sub. *glandulosum*

*Epilobium matsonii*

sub *ciliatum*

*Epilobium glaberrimum* var. *laffanianum*

*Zauschneria arizonica*

~~*E. cespitosum var. pubescens*~~

~~*Oenothera parviflora*~~

~~Ge. *deltoides* var. *piperitum* f. *glabrata* Murr.~~

~~Ge. *trichocarpa* f. *acaulis*~~

~~Ge. *ectatomma* ssp. *minima* Klein~~

~~Ge. *confertiflora*~~

sub. *Canis* L. Gray

~~Ge. *scoparia* var. *torulosa* L.~~

~~sub. *leptophylla* Walker~~

Ge. ~~*hastatissimum* Steyermark~~

4 - Plants usually  
not flat topped;  
standard taller than  
lance stem,  
~~u.~~ ~~to~~ wyomingensis

246

112.0 ± 7.0 1.6859°

272.1 Lv Reno

301.5 ± 1.0

1 Surfaces essentially  
yellow-green (except sometimes  
the outermost racts,  
shining yellow-green;  
leaves minutely green dotted  
in the center; plants  
typically small, 2-4 cm,  
with a narrow inf.,  
but sometimes 6 to 7+  
cm and with somewhat  
broader infl. & racts,

1 Surfaces ± center,  
mostly gray; leaves  
scarcely if at all  
yellow dotted.

2 - Low plants, mostly  
2 - 4 dm, with  
narrow stiff.

*A. glauca*

2. ~~Montane~~ Mostly  
taller plants.

3. *A. Tradescantia* L. f.

3. Rabest plants,  
1 - 2 1/3 m., mostly  
dangeriff. Trident

3. Less robust, often  
with smaller  
stiff, to 1. (1.2) m.

4. Plants flat, lippes,

+ smelling of

compho; montane

vs. *montana*

July 10 1956  
- 1000 ft.  
1956

#52 6366  
Self p

Gebbius 1957  
Self p

Self p is reversely  
2 annual auxiliaries,  
derived from a northern  
sp. One "large-leaved"  
reduced to 0.5 ft. the other  
with normal leaf-pattern

82 & 60 min

88 5 pp 93

165 app. Epi lithum

Congrecato  
uppermost Cretaceous

801 → 277-0701 EN

375 3761

213 - 433-3703 70803  
4318 E. Broadway, L.B.C.  
Marian

801-225-7085  
Welsch - Lowe

Va/01e + 8.11 80-245-3048

916-455-8037

Garcia metho, C. 11.6. 95 820  
5465 McGlashon St.

Fern

714-996-7915

Fullerton, Calif.  
516 Moonbeam St.  
John Cronquist

John Cronquist

516 Moonbeam St.  
Fullerton, Calif.

714-996-7915

Fern

5465 McGlashan St.  
Sacramento, Calif. 95820  
916-455-8037

Valoie + 8, II 801-245-3048

Welsh - home

801-225-7085

Mariam

4318 E. Broadway, L.B.  
213-433-3703 70803

212-<sup>49</sup>742-4807

397 Lycia lyci

0000000000

34-

3 art

14

25 49

32nd St.

at Brumby.

Naom

Накрываем

1020 LLC